Figure 1.

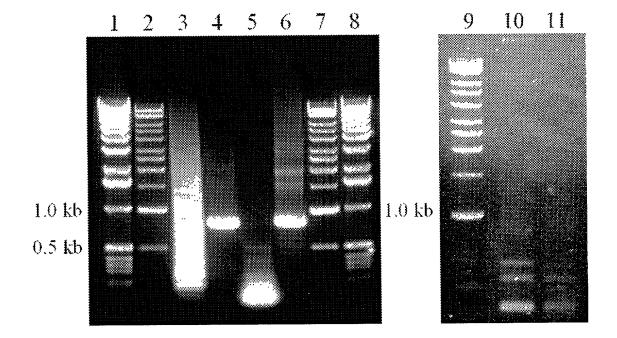
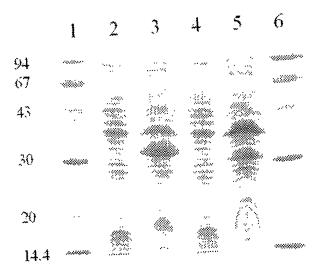
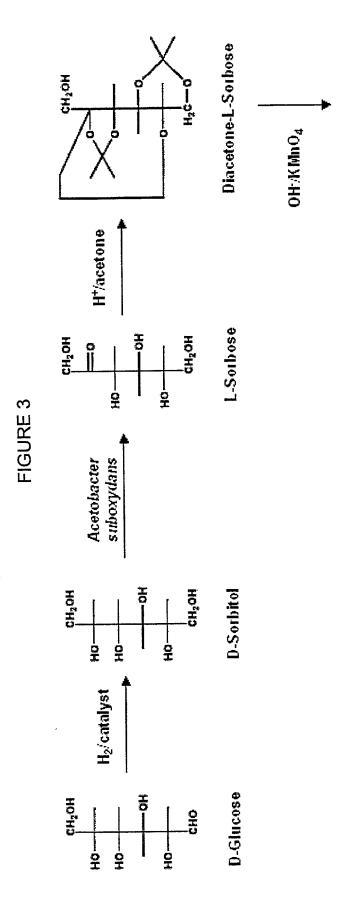


Figure 2.

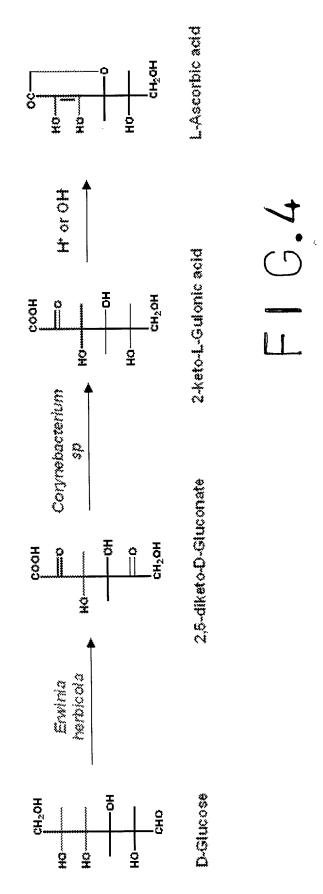




Diacetone-2-keto-L-Gulonic acid COOH ± 2-keto-L-Gulonic acid FOI CH<sub>2</sub>OH COOH 2 무 H+ or OH L-Ascorbic acid CHIOH 191

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The Sonoyama "Tandem Fermentation" Synthesis of L-Ascorbate (1982)



The "Single Bug" Synthesis of L-Ascorbate (Anderson 1985)

